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Johnson et al.

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(54) **SUBSEA PIPE SECTION WITH
REINFORCEMENT LAYER**

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(71) Applicant: **Ticona LLC**, Florence, KY (US)
(72) Inventors: **Aaron Johnson**, Winona, MN (US);
David Eastep, Winona, MN (US);
Timothy Tibor, Winona, MN (US)
(73) Assignee: **Ticona LLC**, Florence, KY (US)
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Primary Examiner — Patrick F Brinson

(74) *Attorney, Agent, or Firm* — Dority & Manning, P.A.

(57)

ABSTRACT

Subsea pipe sections and methods for forming subsea pipe sections are disclosed. A subsea pipe section includes a hollow body formed from a polymer material, the hollow body having an inner surface and an outer surface, the inner surface defining an interior. The subsea pipe section further includes a reinforcement layer surrounding and bonded to the hollow body, the reinforcement layer having an inner surface and an outer surface. The reinforcement layer is formed from a fiber reinforced thermoplastic material and has a resin rich portion and a fiber rich portion. The resin rich portion includes the inner surface of the reinforcement layer and is in contact with the hollow body. The fiber rich portion is spaced from the inner surface of the reinforcement layer.

Related U.S. Application Data

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CPC . **F16L 9/00** (2013.01); **B29C 70/86** (2013.01);
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(58) **Field of Classification Search**

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See application file for complete search history.

27 Claims, 24 Drawing Sheets

